

WHAT IS CLAIMED IS:

1. A zoom lens apparatus, comprising:

a variable-magnification lens which is held by a first lens frame and movable along an optical axis in a lens barrel; and

a correcting lens which is held by a second lens frame and movable along the optical axis in the lens barrel, wherein:

the variable-magnification lens is shifted so as to vary a focal distance of the zoom lens, and the correcting lens is shifted so as to compensate for any focus blurring due to the shifting of the variable-magnification lens;

at least one of the first and second lens frames comprises:

an inner frame which holds the lens;

an outer frame which holds the inner frame to be shiftable back and forth along the optical axis; and

a drive device which shifts the inner frame back and forth relative to the outer frame; and

any focus blurring due to variations in wavelength of subject light is compensated for by causing the drive device to shift the inner frame relative to the outer frame and thereby shifting at least one of the variable-magnification lens and the correcting lens.

2. The zoom lens apparatus as defined in claim 1, further comprising:

a selector device which selects a wavelength of subject light;

a memory device in which information on a position on the inner frame relative to the outer frame is stored for each wavelength of subject light selectable by the selector device; and

a control device which so controls the drive device as to shift the inner frame to the position matching the wavelength of subject light selected by the selector device according to the information stored in the memory device.

3. The zoom lens apparatus as defined in claim 1, wherein:

the inner frame and the outer frame have a threaded outer surface and a threaded inner surface, respectively, engaged with each other; and

the drive device is arranged on the outer frame and rotates the inner frame relative to

the outer frame so as to shift the inner frame back and forth along the optical axis.

4. The zoom lens apparatus as defined in claim 3, further comprising:
 - a selector device which selects a wavelength of subject light;
 - a memory device in which information on a position on the inner frame relative to the outer frame is stored for each wavelength of subject light selectable by the selector device; and
 - a control device which so controls the drive device as to shift the inner frame to the position matching the wavelength of subject light selected by the selector device according to the information stored in the memory device.